



2012 Consumer Confidence Annual Water Quality Report

Water System ID No. 77620Y

For more information or questions please contact:

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Dear Water Customer:

The City of Sequim is pleased to share with you, our customers, the quality of your drinking water in this 2012 Annual Water Quality Report.

We want to be sure you know:

The City of Sequim's drinking water **meets or exceeds** all state and federal safe drinking water standards. You will find full details in this report.



History of Sequim's Water System

A study of the City of Sequim's water system was completed in 1973. As a result of this study, additional water system improvements were made to the City's water system. These improvements included covering the City reservoir, metering connections, and replacement of sub-standard water lines. Another report was completed in 1983 which addressed issues of water quality, water resources, and conservation. Improvements made to the City's water system which were recommended in this report included covering the 500,000 gallon reservoir, development of the Silberhorn Well Field, installation of a chlorination system in the intake piping, and construction of a new infiltration gallery on the Dungeness River. In 1986, a reservoir at a higher elevation was constructed and the Silberhorn Well Field was brought online. The City's 1.7 million-gallon (MG) reservoir was constructed in 1996. It provides a higher-pressure zone for the City. The Port Williams Well No. 1 was drilled and began providing drinking water in 1995. In 1998, additional pipelines were constructed and Port Williams Well No. 2 was drilled and equipped. A one million gallon reservoir on the east slope of Bell Hill was completed in 2008.

Port Williams Well No. 3 was completed and put into operation in 2009. Number 1 well at our Silberhorn well field was reconditioned and put back online in 2011. In 2012 the city replaced approximately 580 lineal feet of drinking water main lines in South Sequim Avenue and Washington Street. Our water meter replacement program for residential water meters was completed in 2012. In 2013 the City will be planning and engineering for the replacement of water lines that have either reached their service life or have inadequate capacity. These water lines will then be slated for construction in 2014. The city is committed to having a robust water system and will continue to improve your water system with the replacement of undersized public water lines with pipe that meets our current standards to benefit both water flow and quality.



**See Page 8 for the latest
information on water testing.**

Water Quality Protection Programs

The City is committed to supplying its customers with high quality drinking water. The City has adopted a comprehensive plan to ensure that the drinking water supplied to its customers meets or exceeds all Federal and State standards. This comprehensive plan will be updated in 2013.

The City of Sequim's Water System Plan

This plan has been approved by the Sequim City Council, Department of Health (DOH) and Department of Ecology (DOE). The plan analyzes all aspects of the water system, identifying current and future plans by the City to continue to provide high quality drinking water to its customers. The City's Water System Plan must be updated every six years. The City is now in process of a new water system plan that will be completed in 2013.

Water Conservation Program

The 2008 Water System Plan recommends many ways in which the City and its residents can help preserve and protect our water resources (see page 4 under Water Conservation).

Water Storage

Commercial and domestic demand, nesting, and emergency use water storage is provided by four reservoirs. The combined storage capacity of all four reservoirs is 3,400,000 gallons of water.

Water Quality Monitoring Requirements

Existing State law requires water systems to monitor for numerous contaminants on a regular basis. The City is in compliance with existing water quality monitoring requirements. Pages 5 & 6 indicate the water quality tests regularly performed by the City.

Wellhead Protection Program

The Water System Comprehensive Plan sets protective boundaries around the City's wells, identifies potential contamination sources around the wells and provides notification to City residents about wellhead protection.

Cross Connection Program

The city is mandated by Washington State Department of Health (DOH) to have an active cross connection program in place. In 2013 the city will be contacting customers to achieve our full compliance with DOH cross control requirements. [CCC Rules \(PDF, DOH 331-355\)](#) - Washington State CCC regulations (WAC 246-290-490) and related definitions.

If you see a potential problem, let us know.

Drinking Water Wells

To protect your drinking water wells, follow the Department of Ecology's "[Homeowners Guide to Well Construction.](#)" You may also refer to the Washington State Administrative Code [WAC 173-160-171](#). Sequim welcomes input and would be happy to supply you with additional information. Feel free to contact the City Public Works staff at 615 N. Sequim Avenue, 360-683-4908 or www.sequimwa.gov.



Upper Dungeness River

Washington's lakes, streams, and rivers play critical roles in people's lives. People rely on clean, unpolluted water for recreation, such as boating, fishing, and swimming. They also rely on clean water for DRINKING. To remain healthy, people need water that is safe to drink (see www.clallam.net for more information on WRIA 18 watershed protection).

General Health Effects Information

While traveling through the ground, groundwater dissolves some of the naturally occurring minerals that may contain substances resulting from the presence of animals or human activity. Contaminants that may be present include microbes, inorganic and organic chemicals, pesticides, herbicides, and radioactive materials. To ensure that tap water is safe to drink, the Environmental Protection Agency (EPA) prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration regulations establish limits for contaminants in bottled water which are required to meet the same standards as public drinking water.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immune-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly and also infants can particularly be at risk for infections.

Lead and copper can leach into residential water from building plumbing systems. Lead and copper monitoring is conducted at homes categorized as high risk and under worst case conditions. Homes or buildings that were built or re-plumbed with copper pipes and lead-based solder are considered to be high risk. The use of lead-based solder was stopped in 1985. For more information please contact the Washington State Department of Health at 1-800-521-0323.



Checking Chlorine and Pumping Levels

Water Use Efficiency Leakage Information for 2011	Million Gallons
Total Water Produced	327
Total Water Purchased	282
Unaccounted for Distribution System Water	45
Distribution System Losses as Percentage	13.8%

The table above shows the City's water production, purchased water and water system loss. This table also shows the city's commitment conserve and to account for all water produce and eliminate all unaccounted for water.



Reading Water Meters with Touch Read Wand

Water Conservation for You

Save Water Indoors

The average family uses 22% of their water washing clothes, 1% washing dishes, 16% using faucets, 17% showering, 27% flushing toilets, 14% on leaks, 2% taking baths, and 2% on other uses.

Save Water in the Bathroom

Check all faucets, pipes, and toilets periodically for leaks. A faucet drip or invisible leak in the toilet will add up to 15 gallons of water per day, or 105 gallons per week, which adds up to 5,475 gallons of wasted water per year. Check your flapper periodically to make sure it's a tight fit.

Install water saving shower heads. Low-flow showerheads deliver 2.5 gallons of water per minute or less and are relatively inexpensive. Older showerheads use 5 to 7 gallons per minute.

Take short showers or shallow baths. Simply taking shorter showers will save gallons of water. For long exposures to the water, a partially filled bath instead of a shower will use less water.

Install a 1.6 gallon low-flow toilet. Ultra-low flow toilets use only 1.6 gallons of water per flush. Using these could cut indoor water use by as much as 20%. Older toilets use 3.5 to 5 gallons per flush.

Check for toilet leaks. Once a year, check for toilet leaks. Remove the toilet tank cover and drip 10 drops of food coloring into the tank. After 15 minutes, check for color in the toilet bowl. If you see any color, your toilet has a leak and should be repaired immediately. Again, remember to check your flapper periodically to make sure it's a tight fit.

Don't use the toilet as a wastebasket. Using a wastebasket instead of the toilet for tissues, cleaning wipes, cloth and other bits of trash will save gallons of water that otherwise are wasted. It will also save the City staff time in finding system plug-ups, doing repairs and reduces City wastewater treatment costs. This saves you, the taxpayer, money.

Fix leaky faucets immediately. A leaky faucet may simply need a new washer. Small faucet leaks can waste 20 gallons of water per day. Large leaks can waste hundreds of gallons.

Turn off the water while shaving, brushing teeth, etc. Don't let water run when you brush your teeth, wash your face or hand, or shave. This can save 3 to 7 gallons per minute.

Water Loss in Gallons at 60 psi	
Leak this Size	Loss per Month
1/32"	6000
1/16"	25,000
1/8"	100,000
1/4"	400,000

Save Water in the Kitchen and Laundry

Fill your dishwasher. Your dishwasher uses the same amount of water whether it is full or just partially full of dishes, so be sure to fill it before you run it. Many dishwashers have a water saver cycle to save even more water.

Select proper water level laundry. Unlike your dishwasher, you can control the amount of water used by your clothes washers. Select the proper water level for each load of laundry.



City Staff Installs a New Water Meter

Questions:

How can I stay in touch with decisions that affect my drinking water?

- Newspapers
- Attend City Council Meetings
- City of Sequim website: <http://www.sequimwa.gov>
- DOH website: <http://www.doh.wa.gov/ehp/dw/default.htm>
- DOE website: <http://www.edy.wa.gov/programs/wr/wrhome.html>

Is bottled water cleaner and safer than tap water?

Since the Federal Food and Drug Administration regulates contaminants in bottled water and is responsible for providing the same levels of public health protection as public water systems, bottled water is not necessarily cleaner or safer than tap water.



Changing Weekly Water Flow Charts

Why is chlorine added to my drinking water?

Pursuant to state and federal laws, very small amounts of liquid chlorine in the form of Sodium Hypochlorite (NaOCl) are added to your drinking water as a disinfecting agent to protect you from disease-causing microorganisms. If you are bothered by the chlorine taste, keep a pitcher of tap water in the refrigerator. The chlorine will dissipate rapidly if the water is allowed to sit for a time.

Protecting our Water Supplies

People have grown understandably concerned about the safety of America's drinking water supply. It is a concern we all share and the City of Sequim has been working hard with our Emergency Management partners, EPA, DOE, DOH, County Health, Dungeness River Watershed, Users, Homeland Security and others in the drinking water industry to provide you with a safe and reliable water system.

Is our Drinking Water Supply Safe? YES

Your City Staff monitors:

- Daily Chlorine Checks
- Daily Turbidity (clarity of water)
- Monthly Coliforms
- Taste and Odor
- Security Surveillance at All Water Supply and Supply Areas
- Backflow Device Testing
- Inspection of All Installations and Repairs

City customers would be immediately notified if precautions were needed or warranted.

What should I do if I see someone around the City's drinking water supply that looks suspicious?

Contact your local law enforcement by dialing 9-1-1 to report a suspicious event.



Monitoring Levels in Local Wells

The Following Tests are From July 2012

Table 2

Water Quality Data (Regulated by EPA, State and other)

Source – (SO1) Infiltration System

DOH #	Analytes	Results	Units	SRL	Trigger	MCL	Method (Analyst Init.)
20	Nitrate-N	<(0.1)	mg/L	2.0	5	10	EPA 300.0 (JS)

Table 2

Water Quality Data (Regulated by EPA, State and other)

Source – Silberhorn (SO2)

DOH #	Analytes	Results	Units	SRL	Trigger	MCL	Method (Analyst Init.)
20	Nitrate-N	1.45	mg/L	2.0	5	10	EPA 300.0 (JS)

Table 2

Water Quality Data (Regulated by EPA, State and other)

Source – Port Williams (SO5)

DOH #	Analytes	Results	Units	SRL	Trigger	MCL	Method (Analyst Init.)
20	Nitrate-N	0.78	mg/L	2.0	5	10	EPA 300.0 (JS)

Definitions of the above tables are located on page 7.



Local Schoolchildren Experience the Dungeness River

Reading the Tables

MCL (Maximum contaminant level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum contaminant level goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MFL (Million fibers per liter): Unit of measure for asbestos fibers greater than 10 mm in length.

NTU (Nephelometric turbidity unit): The unit of measure for turbidity.

PPM (Part per million): One part per million or one milligram per liter (mg/L).

Secondary MCLs: MCLs based on factors other than health effects such as taste and aesthetics.

DBPs-TTHMs (Total Trihalomethanes): Contaminants created from the reaction of chlorine and water. The result shown is samples from 2008.

DOH (Department of Health): Washington State Department of Health.

VOC: Volatile Organic Chemicals

SOC: Synthetic Organic Chemicals

Radioactive Contaminates: Can occur naturally or be the result of oil and gas production and mining activities.

SRL: (State Reporting Level) indicates the minimum reporting level required by DOH.

NA: (Not Analyzed) use in the results column for compounds not included in current analysis

ND: (Not Detected) use in the results column for compounds analyzed and not detected at a level greater or equal to the SRL.

Trigger Level: (DOH Drinking Water response level) Systems with compounds detected at concentrations in excess of this level are required to take additional samples.

Method: Is a definitive procedure that produces a test result.

Results: Is the product of performed test.

Units: Are measurements an metric form: L = Liter, mg = milligram

Water Quality Monitoring Results

The data shown in Table 2 are some of the items tested for by the City of Sequim. All the contaminants are well below the levels allowed by the state and federal agencies. Additional information on chemical analyses can be obtained by calling Sequim Public Works Department at 360-683-4908

Water Quality Monitoring Requirements				
Parameter	Sample Location	Frequency	SOURCE	Year
Routine Coliform	Distribution System	10 per Month	Distribution System	10 per Month
Turbidity	Source Supply	Every Day	SO1, SO2, SO5	Every Day
Inorganics	Source Supply	Every 3 years	SO1, SO2, SO5	Between 2011 - 2019
VOCs	Source Supply	Every 3 years	SO2, SO5	2013
SOCs	Source Supply	Every 3 years	SO1, SO2, SO5	Waiver granted thru 2013
Lead and Copper	Distribution System	Every 3 years	Distribution System	2013
Trihalomethanes	Distribution System	Every Year	Distribution System	2013
Radionuclides	Source Supply	Every 4 Years		2014
Chlorine Testing	Distribution System	Every Day	Distribution System	Every Day



Current Events:

The City of Sequim has completed our sampling for Freon 22 in the 3 Port Williams Wells (SO5) and there was No Detection of Freon 22 in the Wells. The sampling was conducted due to Freon 22 was detected in wells located North of the City. The City will continue to have an active role in the investigation of the Freon 22 source with Clallam County and Washington State Department of Health. The City of Sequim is obligated to our customers to provide you with safe and reliable drinking water and to continue your confidence in your drinking water.

Thank you for allowing your City Staff to serve you and share this report with you.